The Fluctuations in World oil price and its impact on sustainable development and the role of SAIs
A working paper to participate in the 3rd meeting of the Working Group on the INTOSAI Auditing Extractive Industries, Kenya- 2016
Introduction

Oil is the main source of energy in the world and the most available and saving product to produce this energy, therefore oil is a strategic material of industrial and developing countries economics and polices depend on it. All countries in the world are facing one threat which is (the fluctuation of oil price), as a result of this threat there are many challenges in the preparation of public budgets or when making economic decisions for the oil-exporting countries, especially this threat has become a recurring phenomenon and worrying at the global level that affects the most producing countries and oil exporters, especially those who consider oil the main source in achieving its financial resources in foreign currency.
The international oil market is a dynamic and instability, that makes oil prices are unstable and subject to ongoing volatility until this phenomenon of volatility becomes a disturbing phenomenon at a global level since the beginning of seventies of the last century until now, especially after the significant rise in 2006 and 2007 that reach more than (147$ / barrel) and almost reach (150 $/ barrel) in July 2008 but soon began falling and sharply to below than (40 $/ barrel) at the end of the second half of the same year, especially in December had lost about (110 $ / barrel ). The reason was the global financial crisis that hit the global economy, which had negative effects on oil economy and reflected clearly on the international oil market by declining the level of oil prices dramatically.
The oil market consists of producers, consumers, exporters and importers, and there are some countries pose a gathering of the two, while others are either producers or only importers. This mixture between being productive and importer at the same time adds a lot of difficulty in determining producing countries price because this process does not associated with them only, but it also affected somewhat in the mechanism and work of the imported producing countries, which resulting the producing countries to be prepared price studies that meet all the surrounding circumstances.

Oil markets like other markets, they determine the contractual relationship including the shape and types, size and amount of contracts among oil producers (the seller) and importers of crude oil (buyers).
Influencing factors in determining the price of crude oil:

The oil market is subject to a number of factors and influences that lead to a significant difference in crude oil prices from time to time and from one market to another, and can be summarized these factors according to the chart below:
• the chart mentioned above shows that crude oil prices are affected by many factors, and all factors set forth in the previous format affect on the volatility and tracks oil prices. The most severe volatility is often a political, economic nature, and perhaps the political factors could be larger than the other factors due to oil consider an international and strategic importance (causative product) and this would have a major impact in all political and economic decisions of the oil-exporting countries and the decisions of the oil-importing countries, this lead to release oil price risk and related risks of many challenges for the governments of the oil-exporting countries which their economy is depended on oil revenues entirely.
States of high oil production capacity (Swing producer) are controlled the world's oil prices through an increase or decrease production and export capacity, but currently it has changed. In the Organization of Petroleum Exporting Countries meeting (OPEC) held in Austrian capital in (2014), the responsibility was handed to the market forces to determine the prices. OPEC's decision to keep production (31.700) million barrels per day didn’t receive any support by all members and some members were opposed the decision as considering the worst affected due its economy depends on oil excessively.
Challenges facing oil prices:

• The different forces that acting in the global oil market has led to the birth of a new energy strategy as well as having revolution in the production of unconventional oil and gas, which is the oil and gas sandstone and shale.

• The development in the hydraulic fracturing technology reduces extraction costs of horizontal drilling technology, these techniques allow access to petroleum reservoirs that are difficult in exploration and extraction.

• Oil-consuming countries may be able in future to achieve full independence from reliance on oil from the Middle East or any other source in the world and even more than that, their laws may allow to export oil with great rates to global markets in the next few years.

• The East African country have developed their oil industries, and it is expected their industries will be more developed in the future, as well as some these countries have reserves of gas.

• Remove the sanctions imposed on Iran will contribute to increase the oil supplies from Iran to the global market thus increasing the supply.

• The rapid growth of global production of renewable energies has began and occupied a significant ratios of the world’s total energy requirement.

• Therefore speculation in the oil exchanges will lead to a further decline in prices.
Sustainable Development:

There are many definitions of sustainable development and in different ways, but the common used definition is based on determining "Our Common Future." Which was published during the meeting of the Portland Commission in 1987, which mainly stipulated (sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs), all definitions of sustainable development but eventually lead to the same approach.
Basic dimensions of sustainable development:

- Sustainable development includes three interrelated and integrated dimensions in an interactive framework characterized with discipline, organizing and rationalizing of resources, the dimensions are (economic, social, environmental):
  
  - **Economically**: sustainable development economically represented as a system which is able to produce goods and services on an ongoing basis and maintain a certain level economically balance between the public gross public debt, and that prevents social disruptions caused by economic policies.
  
  - **Environmentally**: sustainable system environmentally must maintain a stable base of natural resources, avoid excessive depletion of renewable and non-renewable resources, that includes the protection of biodiversity, air poise, and the productivity of the soil and other natural ecosystems, which is not usually classified as natural resources.
  
  - **Socially**: The system is socially sustainable in achieving justice in the distribution and delivery of social services such as health and education to those in need and equality in gender and political accountability and popular participation.
The impact of oil prices on Sustainable Development

- The consumption of oil resources in the development process reduces the inventory available for future generations, but that does not mean not to use them, but should take into account their depletion rates, and the possibility of finding alternatives for energy, to ensure that resource not running out before finding acceptable alternatives.

- It is necessary to use their own resources at the present time to prepare a development that achieves other means for income, that will not create a crisis and a sharp defect in the state budget for the present and future.

- That sustainable development is a process of change in which the exploitation of resources and the direction of investment and direction of technological development and institutional change be in a harmony, and is working to enhance the possibility of the present and the future to meet the needs and aspirations of humanity and the survival of society in a balanced condition.

- Countries that depend on oil characterized by low and clear weakness in economic growth and human development, therefore there is a need to adopt new economic policies and provide new sources of income.
Iraq's experience in the light of the decrease in crude oil prices:

• The total reliance on revenues sale of crude oil by successive Iraqi governments since 2003 till now makes the Iraqi economy is described as revenue – generating economy. As shown in Table (1).

• The state budget depending on crude oil revenues ratio reaches in the annual budgets (97%) of the total budget revenues, the ratio of spending on salaries (operating expenses) reaches up to (70%) of the budget.

• When oil prices has declined (60%) from the previous years, the state budget for the year (2015) is loss at least 60 billion dollars, so the Iraq Economic situation is critical. As shown in Table (2).

• The weakness in government body, and the deterioration of the security situation since (2003) until now as well as the battles of Iraq with the terrorist organizations (isis) that occupied territory in Iraq lead to double spending especially in the military field and to compensate the martyrs family and shelter the displaced.
Revenue generated for the years 2005 to 2014: - (Table 1)

<table>
<thead>
<tr>
<th>Rate of other revenue</th>
<th>Other incomes (Billion I.D)</th>
<th>The ratio of oil revenues</th>
<th>Oil revenues (Billion I.D)</th>
<th>Total Income</th>
<th>YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>5179</td>
<td>87</td>
<td>35256</td>
<td>40435</td>
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</tr>
<tr>
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<td>4353</td>
<td>91</td>
<td>44702</td>
<td>49055</td>
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<tr>
<td>13</td>
<td>7374</td>
<td>87</td>
<td>47591</td>
<td>54965</td>
<td>2007</td>
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<tr>
<td>13</td>
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<td>87</td>
<td>70551</td>
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<tr>
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<td>60131</td>
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<tr>
<td>13</td>
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<td>90189</td>
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<tr>
<td>8</td>
<td>9509</td>
<td>92</td>
<td>110308</td>
<td>119817</td>
<td>2012</td>
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<tr>
<td>9</td>
<td>9764</td>
<td>91</td>
<td>104076</td>
<td>113840</td>
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<tr>
<td>8</td>
<td>8537</td>
<td>92</td>
<td>97072</td>
<td>105609</td>
<td>2014</td>
</tr>
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</table>
The following table shows the achieved revenues in the general budget of the Republic of Iraq, from 2006-2016, according to its type (operational and investment): - (Table 2)

<table>
<thead>
<tr>
<th>years</th>
<th>Total (Billion)</th>
<th>Appropriation and expenditure investment (Billion)</th>
<th>Appropriation of operating expenses (Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>51233</td>
<td>9272</td>
<td>41961</td>
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<td>25746</td>
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</table>
Oil investment in Iraq after 2003:

- The oil wealth in Iraq is the main source of funding for the state budget, so the Iraqi government was keen to look for the best ways to improve the oil industry and increase the production and marketing of oil efficient. The most important work implemented by the Iraqi Oil Ministry after (2003) is the (oil licensing rounds ) which conduct to develop the oil industry in the country by attracting investments with international companies specialized in the field of the Iraqi oil industry in order to develop and rehabilitate oil fields. It was with four rounds of oil licenses with specialized international companies to develop oil and gas fields, it was planned that Iraq produces 12 million barrels / day in (2017), however, according to technical matters figure was reduced to 6 million barrels / day through the conclusion of service contracts with international oil companies.
The impact of low budget on sustainable development in Iraq:

- The population in Iraq have reached currently 36 million people, while the population before (2003), no more than (22) million, meaning that the annual growth rate of 3%, and this may weaken the Iraqi government's ability of providing Iraq reconstruction equipments, as nearly 800 thousand persons become qualified to work yearly, and the state must create at least (250) thousand jobs so that the proportion of the unemployed become acceptable, but the current conditions in Iraq can not find this number of jobs annually.
The process of sustainable development in a country like Iraq has oil reserves reach to 150 billion barrels / calculated in 10 April 2013 (according to the Iraqi Ministry of Oil), natural gas reserves and (3.2) trillion cubic meters should take the following steps:

• In order to develop oil industry not only on the extraction of crude oil and sell it, but we can study the possibility of expansion in the petroleum products industry to increase energy refining and petrochemical industries for export to world markets to meet the needs of local markets.

• Establishing specialized service oil companies in oil production service starting from conducting consultancy studies and what require including tests and drilling wells or additional services drilling clays manufacturing, maintenance and specialist testing for quality assurance establishing iron towers (Rigs) and required equipment for the purposes of drilling wells, and transportation and making pipes and pumps, and other works to assist in the required operations for extracting, refining and petrochemical industries.
• investment in joint oil fields with neighboring countries, and must give priority and conduct negotiations with these countries to maintain the country's wealth.

• Restructuring, construction and development of the industrial sector through proper planning for the technology transfer process from developed countries, and establishing sustainability through training, regular maintenance, give attention to research, development, engineering designs and encouraging investors (Entrepreneurs), thus the development of society play a historic role in increasing sustainable economic growth, that require a comprehensive administrative reform to reduce routine and legislation necessary to prevent administrative corruption.

• The need to promote and doubling of production capacity for the manufacture of iron and steel, aluminum and other metals.
The role of SAIs

• SAIs should have an active role in ensuring the best use of resources in light of the decrease of these resources, crude oil prices, especially in the countries that depend excessively on the sale of crude oil to finance its annual budgets. Through updating auditing software and taking necessary steps to amend the audit plan in order to reduce squandering cases in the use of public money, as well as inclusion in the audit reports, especially performance audit reports and the necessary recommendations in order to diversify the sources of public revenue.
For the purpose of activating the role of financial and administrative control and achieve their goals and contribute effectively in the development process, it should be taking into account the following matters:

• Concerning in internal audit units and the developing its action systems and mechanisms in order to ensure better performance helping senior management to focus on strategic issues and achieve their goals.

• Concerning in applying advanced training programs to improve the capabilities of control staff and developing of institutional and professional capacities.

• Development and applying of specific criteria to measure and evaluate the actual performance as compared with the plans, helping to accurately determine deviations from plans and the reasons for their occurrence and develop the necessary solutions to overcome them.

• The development of tools and methods used for control, including the means of analytical control and modern methods especially financial analysis and quantitative methods to ensure providing of accurate data and information, that help to guide and making decisions efficiently.

• Concerning in developing cooperation and coordination between the SAIs and government departments at all levels as well as the development of SAIs relations with other audit units that work in government to ensure the continuous coordination and cooperation to achieve the control objectives.

• Adopting the principle of transparency and accountability in the work through the publication of control reports and work along with the sovereign authorities of the State to clarify all matters to the public, as well as the accountability of government departments at its various levels for the defect and shortage in their work.
Conclusion

• Many countries in the world have exceeded the aspect of the unilateral economy state in the over-reliance on natural resources of various types, proper planning towards sustainable development.

• Sustainable development can be used to improve the ways and methods of education for children and to post-graduation from universities, institutes and concern to health care and well-being of people and security, and rural development, especially in disadvantaged areas of care, which helps to reduce migration from those areas resulting from the lack of job opportunities and a lack of services necessary to live in dignity.

• The process of controlling the population growth rate gives the state broad opportunities for proper planning towards progress and rise and achieve security and peaceful coexistence within the community.

• The supreme control devices that the roles assigned to them under the Constitution and the law to be a sergeant on the proper use and management of public funds effectively.
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